

# Pre-Construction Peak Flow

## Runoff Curve Number and Runoff

Thu Jun 27 16:04:16 2019

Project: WV Poultry Partners

By:

Date: 06/27/19

### Present Conditions

#### 1. Runoff Curve Number (CN)

Cover description	CN	Soil Group	Area(Acre)
Woods (Good)	70	C	82.270
Gravel Streets, Pads and Buildings	89	C	0.000
Pasture Grassland Range (Fair)	79	C	85.050
Row Crops - C (Good)	82	C	51.680

CN (weighted): 76.3

Total Area: 219.000 Acres

#### 2. Runoff

Return Period: 1 YEAR

Rainfall, P: 2.48 in

Runoff, Q: 0.6971 in

Runoff Volume: 12.7221 Acre-Ft

## Time of Concentration (SCS)

Thu Jun 27 16:06:39 2019

Project: WV Poultry Partners

By:

Date: 06/27/19

### Present Conditions

Curve Number : 76

Length of Flow : 4865.00 ft

Average Land Slope : 1.54 %

Time of Concentration : 1.707 hrs, 102.4 mins

## Graphical Peak Discharge

Thu Jun 27 16:49:15 2019

### 1. Data:

Drainage area:.....A = 219.0000Acres

Runoff Curve Number:.....CN = 76

Time of Concentration:.....Tc = 102.40 min

Storm Type:..... = II

Pond and swamp areas spread

throughout watershed..... = 2.83 percent of A => 6.1977 Acres

2. Frequency.....yr = 1

3. Rainfall,P(24-hour).....in = 2.48

4. Initial abstraction, Ia..... = 0.6316

5. Compute Ia/P..... = 0.2547

6. Unit peak discharge, qu.....csm/in = 222.630

7. Runoff,Q.....in = 0.6825

8. Pond & swap adjustment factor,...Fp = 0.75

**9. Peak Discharge,qp.....cfs = 38.994**